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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,107	06/27/2001	Shinji Kawamoto	10873.760US01	4882

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EXAMINER

PIZIALI, ANDREW T

ART UNIT	PAPER NUMBER
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1775

6

DATE MAILED: 08/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/893,107

Applicant(s)

KAWAMOTO ET AL.

Examiner

Andrew T Piziali

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 28-31 is/are pending in the application.
- 4a) Of the above claim(s) 28-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4,786,784 to Nikodem et al. (hereinafter referred to as Nikodem).

Regarding claims 1-6 and 31, Nikodem discloses a window glass for a vehicle comprising a glass sheet and a transparent conductive film and a pair of bus bars for feeding power to the transparent conductive film, the bus bars including a longer bus bar and a shorter bus bar, the transparent conductive film and the bus bars being formed on the glass sheet (see entire document including the abstract, column 5, line 32 through column 6, line 29 and Figure 1).

Nikodem discloses that the "Resistance of the product can be changed by varying either the silver thickness or the coating parameters or both and is adjusted to compensate for resistance changes due to electric powering, and/or temperature/pressure affects in lamination" (column 4, lines 6-17). It would have been obvious to one having ordinary skill in the art at the time the invention was made to increase the thickness of the silver layer from the longer bus bar towards the shorter bus bar, to acquire any desired heat generation value, because it requires only routine skill in the art to determine that more heat is generated closer to the shorter bus bar than is

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generated closer to the longer bus bar and because Nikodem discloses that the thickness may be varied to compensate for resistant changes in the lamination.

Regarding claim 4, Nikodem discloses that the window glass may comprise at least two glass sheets and a thermoplastic resin film for bonding the glass sheets and the conductive film and bus bars are provided on the surface of one of the glass sheets (abstract and column 7, lines 28-44).

Regarding claim 5, Nikodem discloses that the conductive film may comprise a metal oxide film, a silver layer and a second metal oxide layer (column 6, lines 18-29). Nikodem does not specifically mention a five layer conductive film, but the examiner takes Official Notice that it is well known in the art that alternating layers of metal oxide and Ag may be repeated as desired to reach the desired reflectance. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a five layer conductive film rather than the three layer conductive film disclosed by Nikodem, because a five layer film reduces the reflectance more than a comparable three layer film which is desirable in some vehicular window glass applications.

Regarding claim 6, Nikodem discloses that a ceramic mask may be provided at a portion where the bus bars are formed (abstract and column 5, lines 32-60).

Response to Arguments

3. Applicant's arguments filed 6/30/2003 have been fully considered but they are not persuasive.

The applicant asserts that Nikodem does not teach or suggest that the surface resistance

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of a conductive film can vary as recited in current claim 1. The examiner respectfully disagrees. Nikodem discloses that the "Resistance of the product can be changed by varying either the silver thickness or the coating parameters or both and is adjusted to compensate for resistance changes due to electric powering, and/or temperature/pressure affects in lamination" (column 4, lines 6-17). The examiner asserts that it would have been obvious to one having ordinary skill in the art at the time the invention was made to increase the thickness of the silver layer from the longer bus bar towards the shorter bus bar, because it requires only routine skill in the art to determine that more heat is generated closer to the shorter bus bar than is generated closer to the longer bus bar and because Nikodem discloses that the thickness may be varied to compensate for resistant changes in the lamination.

The applicant asserts that the suggestion that the silver thickness or coating parameters can be varied does not suggest that a surface resistance can be varied within a single conductive film. The applicant asserts that the suggestion is only that the silver thickness or coating parameters can be changed as a whole. The examiner respectfully disagrees. Nikodem discloses that the "Resistance of the product can be changed by varying either the silver thickness or the coating parameters or both and is adjusted to compensate for resistance changes due to electric powering, and/or temperature/pressure affects in lamination" (underline added, column 4, lines 6-17). Therefore, the examiner contends that Nikodem teaches that the silver thickness or coating parameters can be varied within a single conductive film.

The applicant is directed to USPN 3,982,092 to Marriott (previously cited in the Office Action mailed 3/31/2003). Marriott clearly discloses that it is known in the art to vary the

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thickness within the conductive film of a vehicle window to compensate for resistance changes within the conductive film (see column 6, lines 7-24).

Conclusion

4. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Piziali whose telephone number is (703) 306-0145. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (703) 308-3822. The fax phone numbers for the

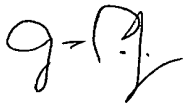
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organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-5665.



atp
July 24, 2003

Andrew T Piziali
Examiner
Art Unit 1775


DEBORAH JONES
SUPERVISORY PATENT EXAMINER